

IN THE CLAIMS

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A two speed transmission system mounted for driving a marine craft-comprising:

an input shaft coupled in direct connection with a driveshaft of an engine of the marine craft;

an output shaft coaxial with the input shaft coupled in direct connection with a driveline of the marine craft;

a first gear train for transmitting drive from the input shaft to the output shaft at a low speed fixed first gear ratio;

a second gear train for transmitting drive from the input shaft to the output shaft at a cruising speed fixed second gear ratio;

a first friction clutch operable to engage/disengage the first gear train, whereby the first friction clutch is engaged to drive the marine craft in the low speed first gear ratio; and

a second friction clutch operable to engage/disengage the second gear train, whereby the second friction clutch is engaged to drive the marine craft in the second gear ratio;

wherein the input shaft is isolated from driving interconnection with the output shaft by disengagement of both clutches; and

wherein in shifting between the first gear ratio and the second gear ratio one of the friction clutches is disengaged using controlled slippage while the other friction clutch is engaged using controlled slippage; and

wherein the second friction clutch is operable to engage the output shaft in direct 1:1 drive with the input shaft, and the first friction clutch is operable to connect the input shaft to the output shaft via the lay shaft such that the first gear ratio other than 1:1.

2. (Currently Amended) A two speed transmission system as claimed in claim [[16]]1, wherein the first gear train includes a lay shaft which is in driven engagement with the input shaft when the first friction clutch is engaged for operation at the first gear ratio, and wherein the lay shaft is isolated from direct driven engagement with the input shaft by disengagement of the first friction clutch.
3. (Previously Presented) A two speed transmission system as claimed in claim 2, wherein the output shaft and input shaft are linked via the lay shaft which extends parallel to the input and output shafts.
4. (Previously Presented) A two speed transmission system as claimed in claim 3, wherein gears of the input shaft and output shaft for transmitting drive to and from the lay shaft are located between the friction clutches and an output end of the output shaft.
5. (Previously Presented) A two speed transmission system as claimed in claim 1, wherein a one-way clutch means is incorporated in the first gear train such that the first gear train is able to overrun when the second gear train is transmitting drive.
6. (Cancelled)
7. (Cancelled)
8. (Currently Amended) A two speed transmission system as claimed in claim [[6]]1, wherein the gear trains are selected to provide a higher gearing of the lay shaft when the second clutch means is engaged.
9. (Currently Amended) A two speed transmission system as claimed in claim [[6]]1, wherein the gear trains are selected to provide a lower gearing of the lay shaft when the second clutch means is engaged.

10. (Cancelled)

11. (Original) A two speed transmission system as claimed in any one of the preceding claims further including a control system for controlling the first and second clutches.

12. (Previously Presented) A two speed transmission system as claimed in claim 11 further including sensors for supplying information to the control system, the sensors including one or more of clutch pressure sensors, sensors measuring the speed of the input shaft and output shaft respectively and sensors providing information relating to the position of gears in the gear trains.

13. (Previously Presented) A two speed transmission system as claimed in claim 11 further including one or more control valves and electro-hydraulic solenoids to provide controlled clutch slip for docking and other functions where very low speeds of the order of a few knots may be desired.

14. (Previously Presented) A watercraft incorporating a two speed transmission system as claimed in claim 1, wherein the transmission is incorporated as part of a stern drive unit.

15. (Cancelled)

16. (Cancelled)